

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
31 July 2003 (31.07.2003)

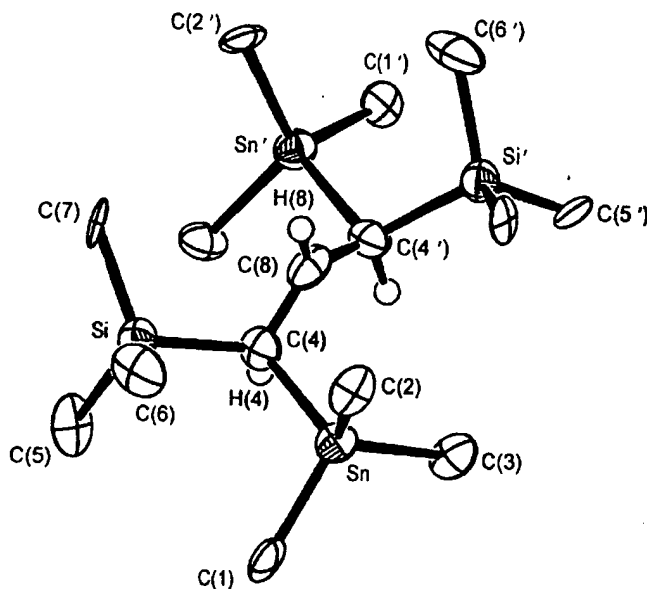
PCT

(10) International Publication Number
WO 03/062284 A3

- (51) International Patent Classification⁷: C08F 10/10,
210/12, 4/16, C07F 7/22
- (21) International Application Number: PCT/CA03/00067
- (22) International Filing Date: 21 January 2003 (21.01.2003)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
2,368,724 21 January 2002 (21.01.2002) CA
- (71) Applicant (for all designated States except US): BAYER
INC. [CA/CA]; Patent Department, 1265 Vidal St. S., P.O.
Box 3001, Sarnia, Ontario N7T 7M2 (CA).
- (72) Inventors; and
- (75) Inventors/Applicants (for US only): BOCHMANN,
Manfred [DE/GB]; 1 Churchfield, Cringleford, Norwich,
- Norfolk NR4 6UP (GB). GARRATT, Shaun [GB/GB];
45 Wilberforce Road, Norwich, Norfolk NR5 8FN (GB).
SCHORMANN, Mark [DE/GB]; 32 Merton Road,
Norwich, Norfolk NR2 3TT (GB).
- (74) Agent: SMART & BIGGAR; 55 Metcalfe Street, Suite
900, P.O. Box 2999, Station D, Ottawa, Ontario K1P 5Y6
(CA).
- (81) Designated States (national): AE, AG, AL, AM, AT, AU,
AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU,
CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH,
GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC,
LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM,
KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW),
Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE,

[Continued on next page]

(54) Title: PROCESS FOR PREPARING ISOBUTYLENE-BASED POLYMERS



(57) Abstract: This invention relates to a metal organic compound, a catalytic composition comprising said metal organic compound, a process for homo- or co-polymerizing isoolefines in the presence of said metal organic compound and a method of stabilizing a compound of the general structure (II) $[R'HC(CRR'')_2]^{2+}[M_2X_9]^{2-}$, in which R is a group of the formula $SiR^1R^2R^3$, R¹ is hydrogen, C₁ to C₁₂ alkyl, a C₆ to C₁₄ aryl or a C₇ to C₂₀ alkylaryl, M is Zr or Hf, X is a halogen atom, and R¹ to R³ is a C₁ to C₁₂ alkyl group, with a compound R' of the formula $M'R^4R^5R^6$, in which M' is Si, Ge, Sn or Pb and R⁴ to R⁶ is a C₁ to C₁₂ alkyl group as well as a non-coordinating anion of the general structure $[M_2X_9]^{2-}$ in which M is Zr or Hf and X is a halogen atom.